Appl. No. 09/758,484
Amdt. Dated September 30, 2004
Reply to Office action of July 19, 2004

REMARKS/ARGUMENTS

Claims 1-36 are pending in the present application.

This Amendment is in response to the Office Action mailed July 19, 2004. In the Office Action, the Examiner objected to claims 5, 11, and 24 in regards to informalities. In addition, the Examiner rejected claims 17, 20, and 22 under 35 U.S.C. §112; claims 1-3, 5, 7-9, 11, 13-16, and 19 under 35 U.S.C. §102(e); and claims 4, 6, 10, 12, 17-18, 20-21, 23-24, and 25-36 under 35 U.S.C. §103(a). Applicants have amended claims 1, 5-7, 11-20, 22-24, 26, 27, 29, 30, and 33-35. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Claim Objections

1.   The Examiner objects to claims 5, 11 and 24. Applicants have amended claims 5, 11, and 24 and removed the minor informalities. Accordingly, Applicants respectfully request the objection to claims 5, 11 and 24 be withdrawn.

Rejection Under 35 U.S.C. § 112

2.   In the Office Action, the Examiner rejected claims 17, 20, and 22 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claims 17, 20, and 22 to clarify the claim language.

The Examiner states that claims 17, 20, and 22 state "selected RLP packet" which is confusing since the station has requested a packet size it would appear a packet size would be returned (Office Action, page 2, Item I). Applicants note that claim 22 does not have the phrase "selected RLP packet" and assume that this is a typographical error where claim 23 is actually intended. Applicants respectfully disagree for the following reason.

The fact that the system has requested a change for the packet-size does not prevent the station from selecting a packet that has a size corresponding to the requested size and sending the selected packet to the station. However, claims 17, 20, and 22 have been amended to remove redundancy in the respective base claims 16, 19, and 22.

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Therefore, Applicants respectfully requests the rejection under 35 U.S.C. §112 be withdrawn.

Rejection Under 35 U.S.C. § 102

1.   In the Office Action, the Examiner rejected claims 1-3, 5, 7-9, 11, 13-16, and 19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,542,490 issued to Ahmadvand et al. ("Ahmadvand"). Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of anticipation. To anticipate a claim, the reference must teach every element of a the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989).

Ahmadvand discloses a data link control protocol for 3G wireless system. A segmentation and re-assembly (SAR) module chops an augmented IP packet to smaller size packets defined as "sequence frames". The size of a sequence frame is variable and dynamically optimized for different QoS data planes based on the QoS requirements and the radio link conditions (Ahmadvand, col. 7, lines 44-51).

Ahmadvand does not disclose, either expressly or inherently, (1) generating a metric to indicate a channel condition based on an estimated error rate, (2) processing the metric to determine optimal packet size; and (3) choosing the optimal packet-size.

Ahmadvand merely discloses the size of a sequence frame is variable and dynamically optimized based on the QoS requirement and the radio link conditions. The radio link conditions are monitored using negative acknowledgements (NAKs) (Ahmadvand, col. 8, lines 14-17), not based on an estimated error rate. To clarify the claim language, claims 1, 7, and 13 have been amended.

Regarding claims 5, 11, 16, and 29, the Examiner states that Ahmadvand discloses the metric is a frame error rate, citing column 1, lines 53-65. Applicants respectfully disagree. First, the cited paragraph merely states that limitations on acceptable delays and/or data BER (bit error rate) are motivators for supporting high QoS delivery (Ahmadvand, col. 1, lines 60-62), not the

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metric is a frame error rate. The issue is, however, moot because claim 5 and 11 have been amended. Regarding claims 16 and 19, they do not recite "the metric is a frame error rate". Therefore, the Examiner's argument does not apply.

With regard to claim 16, Ahmadvand does not disclose, inherently or explicitly, (1) estimating likelihood of packet transmission error, (2) determining a radio link protocol packet-size corresponding to the estimated likelihood, and (3) sending the RLP packet. As discussed above, Ahmadvand merely discloses monitoring the radio link conditions using negative acknowledgements (NAKs), not estimating likelihood of packet transmission error.

Therefore, Applicants believe that independent claims 1, 7, 13, 16, and 19 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully requests the rejection under 35 U.S.C. §102(e) be withdrawn.

Rejection Under 35 U.S.C. § 103

1.   In the Office Action, the Examiner rejected claims 4, 6, 10, 12, 17-18, 20-21, 23-24, and 25-36 under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand. Applicants respectfully traverse the rejection and contends that the Examiner has not met the burden of establishing a prima facie case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., rev. 2, May 2004).* Applicants respectfully contend that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

Ahmadvand discloses a data link control protocol for 3G wireless system as discussed above. Claims 4, 6, 10, 12, 17, 18, 20, 21, 23, and 24 depend on respective independent claims 1, 7, 13, 16, 19, and 22. Claims 1, 7, 13, 16, and 19 have been analyzed and discussed under 35 U.S.C. §102 rejections. Claims 22 is similar in scope as claims 16 and 19.

Ahmadvand, taken alone or in any combination, does not disclose, suggest, or render obvious (1) generating a metric to indicate a channel condition based on an estimated error rate, (2) processing the metric to determine optimal packet size; and (3) choosing the optimal packet-

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size as recited in independent claims 1, 7, and 13 or (1) estimating likelihood of packet transmission error, (2) determining a radio link protocol packet-size corresponding to the estimated likelihood, and (3) sending the RLP packet as recited in independent claims 16, 19, and 22.

Regarding independent claims 25, 29, and 33, the Examiner states that <u>Ahmadvand</u> does not expressly discloses predetermining the RLP packet-size by empirical experimentation. The Examiner then concludes that at the time of the invention, it would have been obvious to a person of ordinary skill in the art to predetermine the RLP packet-size by empirical experimentation because it might be the easiest way to establish the look-up table. Applicants respectfully disagree for the following reasons.

First, claims 25, 29, and 33 do not recite establishing a look-up table. Therefore, the conclusion that using empirical experimentation to establish the look-up table has no basis. Second, since the Examiner did not cite a prior art reference disclosing using empirical experimentation in predetermining the RLP packet-size, such a conclusion can only come from reliance on common knowledge or taking official notice. However, official notice unsupported by documentary evidence should only be taken by the Examiner where the facts asserted to be well-known, or to be common in the art are capable of instant and unquestionable demonstration as being well-known. <u>MPEP 2144.03, In re Albert</u>, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Here, the Examiner failed to establish that using empirical experimentation in pre-determining the RLP packet-size is capable of instant and unquestionable demonstration as being well-known. Furthermore, if official notice is taken of a fact, unsupported by documentary evidence, the technical line of reasoning underlying a decision to take such notice must be clear and unmistakable. <u>MPEP 2144.03</u>. Here, the Examiner's line of reasoning is ambiguous and mistaken. As discussed above, claims 25, 29, and 33 do not recite a look-up table. Even if they recite the look-up table, it is unclear why using empirical experiment is the best way to establish the look-up table.

Therefore, Applicants believe that independent claims 1, 7, 13, 16, 19, 22, 25, 29, and 33 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §112, 35 U.S.C. §102(e), and 35 U.S.C. §103(a) be withdrawn.

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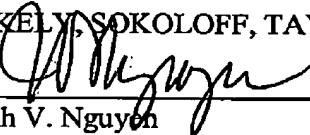Reply to Office action of July 19, 2004

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: September 30, 2004   By_____

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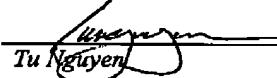*I hereby certify that this correspondence is, on the date shown below, being:*

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                                                              September 30, 2004

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